

[| NODIS Library](#) | [Program Management\(8000s\)](#) | [Search](#) |

NASA Procedural Requirements

COMPLIANCE IS MANDATORY FOR NASA EMPLOYEES**NPR 8621.1D**
Effective Date: July 06, 2020
Expiration Date: July 06,
2025[Printable Format \(PDF\)](#)

Request Notification of Change (NASA Only)

Subject: NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping

Responsible Office: Office of Safety and Mission Assurance

[| TOC](#) | [Preface](#) | [Chapter1](#) | [Chapter2](#) | [Chapter3](#) | [Chapter4](#) | [Chapter5](#) | [Chapter6](#) | [Chapter7](#) |
[Chapter8](#) | [Chapter9](#) | [AppendixA](#) | [AppendixB](#) | [AppendixC](#) | [AppendixD](#) | [AppendixE](#) |
[AppendixF](#) | [AppendixG](#) | [AppendixH](#) | [AppendixI](#) | [AppendixJ](#) | [ALL](#) |

Chapter 3. Investigating Authority and Investigation Support Selection

3.1 Appointing Official Determination

3.1.1 The Administrator shall:

- a. Serve as the AO for Type A mishaps or delegate authority to the AA, MDAA, CD, CHMO, or other designee.
- b. Serve as the AO for NASA joint participation on an investigation with the Department of Defense and other agencies unless otherwise specified in existing agreements.

3.1.2 The MDAA shall:

- a. Serve as the AO for Type A mishaps, if delegated by Administrator, Type B mishaps, high-visibility mishaps, and high-visibility close calls involving Mission Directorate-managed programs, projects, and activities occurring during space flight or occurring outside Center property at MDAA program and project sites (excluding offsite Center support contractor locations).
- b. Serve as the AO (or designate the responsibility in the Program/Project MPCP) for Type C and Type D mishaps, and close calls involving Mission Directorate-managed programs, projects, and activities occurring during space flight, aircraft operations, or outside Center gates at MDAA program or project sites (excluding offsite Center support contractor locations).

3.1.3 The Chief, SMA or designee shall:

- a. Contact the Administrator within one hour of the initial notification of a Type A mishap to ascertain if the Administrator wishes to exercise appointment authority.
- b. Concur with the mishap classification level and the IA membership and serve as an endorsing official for Type A and Type B mishaps and high-visibility mishaps and close calls reports.

3.1.4 The CD and AA, MSD shall:

- a. Serve as the AO (if designated by the Administrator) for Type A and Type B mishaps and high-visibility mishaps and close calls that occur onsite at a Center, at offsite Center support contractor locations, or at Center-managed offsite contractor locations that are not part of an MDAA program or project activity.

Note: A program-independent flight operations office manages aircraft operations; therefore, the CD serves as the AO for mishaps and close calls involving aircraft managed by the Center.

- b. Serve as the AO (or otherwise authorized in the Center MPCP) for Type C and Type D mishaps and close calls that occur onsite at a Center, at offsite Center support contractor locations, or at Center-managed offsite contractor locations that are not part of an MDAA program or project activity.
- c. Consign formal authority to approve IA travel, resource acquisitions, or responsible organization corrective actions, when delegating AO responsibilities for Type C and D mishaps and close calls.
- d. When identifying a position to act with AO authority, formally designate that position within the Center MPCP and confer full AO authority upon that position.

3.1.5 The Chief Health and Medical Officer (CHMO) shall:

- a. Serve as the AO for a Type A mishaps, if delegated by the Administrator, Type B mishaps, high-visibility mishaps, and high-visibility close calls involving a human research subject.
- b. Serve as the AO, via the Institutional Review Board (IRB) process, for Type C and Type D mishaps, and close calls involving a human research subject. (reference 14 CFR pt. 1230, Protection of Human Research Subjects and 7100.1, Protection of Human Subjects).

3.1.6 The OSMA Mishap Investigation Program Executive on NASA's behalf shall:

- a. Support investigations of NASA mishaps by other Federal agencies authorized to investigate NASA mishaps.
- b. Support other Federal agencies, foreign participants, and private industry mishap investigations in accordance with agreements.

Note 1: Applicable when a Presidential Commission is appointed pursuant to the NASA Authorization Act of 2005, Pub. L. 109-155, sec. 821 to investigate the loss.

- 1. The International Space Station or its operational viability.
- 2. Any other United States space vehicle carrying humans and is owned by the Federal Government or being used pursuant to a contract with the Federal Government.
- 3. Crewmember or passenger of any space vehicle described in this subsection.

Note 2: NASA interaction with external investigating authorities under Public Law is illustrated in Appendix G.

3.2 Investigating Authority Member Selection

3.2.1 The AO shall, for Type A and Type B mishaps and high-visibility mishaps and close calls:

Note: For Type C and Type D mishaps and close calls, IA appointment is documented in the MPCP.

- a. Within 48 hours of the mishap, request from the OSMA Mishap Investigation Program Executive a provisional list of IA appointees for concurrence.

Note: IA members include chairperson, voting members, and ex officios. Support personnel such as advisors and consultants are not members of the IA.

- b. Within seven workdays of the mishap, appoint the members of the IA in accordance with Table B and section 3.5 of this NPR with concurrence from the NASA Chief, SMA, Office of the Chief Engineer (OCE), the CHMO, and the Aircraft Management Division (AMD) when warranted by the undesired outcome.
- c. The CHMO concurrence is required for mishaps when at least one of the following is true:
 - (1) The undesired outcome was an injury, including fatality, or illness.
 - (2) An injury or illness was causal to the undesired outcome.
 - (3) Amelioration impacted the severity of the undesired outcome where injury or illness is involved.
- d. Designate the IA chairperson.
- e. Determine if NASA will accept the investigation and subsequent mishap investigation report of another competent authority having jurisdiction.

Note: When the NASA AO accepts an independent investigation conducted by other authorities or contractors citing factual events and conditions for findings from which proximate causes, root causes, and contributing factors may be deduced, the AO is not required to conduct a separate NASA investigation.

Table B. Classification Level With Corresponding Appointing Official and Investigating Authority

Appointing Official and Investigating Authority Assignment Matrix		High-Visibility Mishap or Close Call	Type A	Type B	Type C	Type D	Close Call
Investigating Authority		MIB	MIB (at least five members)	MIB or MIT (at least three members)	MIT or MI	MIT or MI	MIT or MI
Appointing Official1	Offsite, In-flight or Program Contractor Site	MDAA	Administrator, AA or MDAA	MDAA	MDAA Designee (Program MPCP)		
	Center Onsite or Offsite Center Support Contractor or Grantee	CD or AA, MSD	Administrator, AA, CD or AA, MSD	CD or AA, MSD	CD or AA, MSD Designee (Center/Program MPCP)		
	Human Research Subjects	CHMO or CD or AA, MSD	Administrator, AA, CHMO or MDAA	CHMO or CD or AA, MSD	CHMO (IRB)		
Concurrence on IA Membership	All Damage, Injury, or Mission Failures	OSMA and OCE			Center/Program MPCP		
	Injury or Illness as defined in 3.2.1(b)	CHMO			IRB		
	NASA Aircraft Involved	AMD			N/A		

¹ For Centers, AO responsibility may be delegated to the SMA Director but no lower.

Note 1: For mishaps involving human research subjects, the OICs will discuss the case before determining who the AO will be.

Note 2: If the NTSB performs an investigation where a NASA event exists (i.e., employee work-related injury, property damage, or mission failure), OSMA requests that a NASA representative be party to the investigation.

Note 3: An ex officio is not required for investigations by a single mishap investigator where one person becomes injured or ill from a fall down stairs; slip or trip on floor or ground; musculoskeletal disorder (cumulative or acute) while performing routine office duties; insect bite; or aggravated pre-existing medical condition.

f. Compose the IA following these requirements:

Note: Refer to Table C for breakdown of IA functions by mishap classification.

(1) IA members and the executive secretary are to be Federal personnel.

(2) The majority of IA members are to be independent from or have no responsibility for the operation or activity associated with the mishap or close call.

(3) IA members, the executive secretary, advisors, and consultants are to have the requisite security clearances as identified in the Center or Program/Project MPCPs.

Table C. Investigating Authority Functions by Incident Classification

Investigating Authority Federal Employee Functions (1)		High-Visibility Mishap or Close Call	Type A MIB	Type B MIB or MIT (2)	Type C MIT or MI (2)	Type D MIT or MI (2)	Close Call MIT or MI (2)
Voting members (3)	Chairperson	Required except for MIs					
	Human Factors Investigator	Required			Center/ Program MPCP	Center/ Program MPCP	Center/ Program MPCP
	Safety Officer	Required					
	Medical Doctor	Required, as appropriate for injury or illness (4)					
	Technical Subject Matter Expert	(5)					
Non-voting members	Ex Officio	Required					
	Executive Secretary	(6)					
	Legal	Required					
	Public Affairs	Required					

Advisors	NASA Safety Center (NSC)	Required			
----------	-----------------------------------	----------	--	--	--

(1) Functions are combined when appropriate. The AO obtains concurrence from Chief, SMA, OCE, and CHMO on IA membership for Type A and Type B mishaps and high-visibility mishaps and close calls.

(2) An ex officio is not required for investigations by a single mishap investigator where one person becomes injured or ill.

(3) The IA consists of an odd number of voting members including the chairperson.

(4) For Types A and B and high-visibility mishaps and close calls, the AO requests concurrence from the CHMO to include a medical doctor member. For C/D mishaps and close calls, the AO consults the Center occupational health authority or OCHMO for medical representation and consultation. The IA chairperson may request a medical doctor as an advisor or consultant if one is not an IA member.

(5) The AO determines the need for a subject matter expert based on exceptionally large board membership and investigative scope.

(6) The AO determines the need for an executive secretary and other advisors such as procurement, import/export control, or others.

3.2.2 The Center or Program/Project IA shall have the following authority and responsibilities:

a. Have primacy over other Agency collateral investigations with the exception of the OIG criminal investigations.

b. Recommend membership changes to the AO regarding:

(1) Voting members.

(2) Ex Officio.

(3) Advisors.

c. Not participate in more than one type of investigation (NASA, collateral, contractor) for the same investigation or at the same time.

3.2.3 The Center or Program/Project IA composition shall:

a. Consist of an odd number of voting members including the chairperson, members at a minimum.

b. Have at least five members for Type A mishaps and at least three members for mishaps and high-visibility incidents.

Note: An ex officio is not required for investigations by a single mishap investigator for Type B, Type C, and Type D mishaps and close calls where one person becomes injured or ill from a fall down stairs; slip or trip on floor or ground; musculoskeletal disorder (cumulative or acute) while performing routine office duties; insect bite; or aggravated preexisting medical condition.

c. Have a member knowledgeable in aircraft operations and maintenance or a member knowledgeable in aviation safety for all Type A and Type B mishaps and high-visibility mishaps and close calls involving aircraft.

d. For Type A and Type B mishaps and high-visibility mishaps and close calls, include safety, medical, and human factors professionals as members.

Note 1: For aviation Type A, Type B, or high-visibility events, a NASA Human Factors Analysis and Classification System (HFACS) will be performed by the Human Factors member.

Note 2: If the area of investigation expertise cannot be obtained within NASA, the IA's members may be appointed from another Agency.

3.2.4 The Center or Program/Project ex officio shall:

a. Be a non-voting participant in all investigation deliberations.

b. Participate in all investigation proceedings as he or she deems appropriate.

c. Ensure the investigation conforms to NASA policy and this NPR, and the investigation process is impartial, independent, and non-punitive.

Note: An OSMIA mishap investigation specialist is the preferred choice as ex officio for Type A and Type B mishaps and high-visibility mishaps and close calls investigations.

3.2.5 The Center or Program/Project IA Chairperson shall:

a. Manage and coordinate all aspects of the mishap investigation including, but not limited to, the following tasks: assign group leaders; coordinate document and information gathering activities; interview witnesses; reconstruct the mishap or close call; identify facts; identify causal (proximate, intermediate, and root) and contributing factors; generate recommendations; and complete the mishap investigation report.

b. Have the authority to impound data, records, equipment, and facilities and collect or salvage data and debris.

c. Work with the procurement and legal advisors to obtain and impound data for mishaps at contractor or subcontractor sites.

Note: NASA has the authority to impound NASA property for mishaps outside Center property; however, authorization to impound or collect other data, records, and equipment is dictated by local and Federal laws, Agency agreements, and contracts.

d. Release impounded data, records, equipment, facilities, and mishap site when no longer necessary.

Note: If repairs or modifications are determined through the IA investigation to be required before returning equipment or facilities to use, the release of impounded items should include a letter stating what is required.

e. Define the roles and areas of investigative responsibility for each group or subgroup on the IA.

f. Coordinate with the IA legal advisor, HQ, or cognizant public affairs advisor, and other advisors throughout the investigation.

g. Report only to the AO or designee during the investigation.

Note: The intent of this requirement is to provide the IA chairperson with only one supervisor during the investigation, thereby preventing numerous NASA requests for data and status. The report to the AO may include information such as status, facts, preliminary findings, and recommendations for immediate implementation.

h. With the IA legal advisor assistance, refer allegations and evidence of criminal activity identified in the course of an investigation to the OIG and General/Chief Counsel. Privileged witness statements will be protected to the extent provided by law, and all OIG requests for privileged information should be processed through NASA HQ.

3.3 Investigating Authority Advisor Selection

3.3.1 For Type A and Type B mishaps and high-visibility mishaps and close calls, the Center or Program/Project IA shall have a legal advisor and a public affairs advisor.

Note 1: The AO may appoint other advisors to provide specialized expertise or liaison.

Note 2: The AO will designate advisors for Type C, D, and close calls in accordance with the MPCP.

3.3.2 For Type A and Type B mishaps and high-visibility mishaps and close calls, the IA will have access to an OSMA (NASA Safety Center (NSC)) mishap investigation specialist to support the investigation:

a. If requested by the IA, OSMA will provide a mishap investigation specialist to support Type A and Type B mishaps and high-visibility mishaps and close calls.

b. The mishap investigation specialist can provide the following investigation support activities if requested by the IA:

(1) Consultation, preparation, and reporting assistance provided to IA chairperson and ex officio (when not named as ex officio).

(2) Identifying pertinent Agency-level audit results from other NASA installations and coordination with associated Center representatives responding to audit findings.

(3) Researching similar mishap findings and associated recommendations, corrective actions, and lessons learned.

(4) Investigation tool provision and coordination with tool specialists or necessary training.

(5) Assessment of the root cause analysis and associated IA recommendations for clarity, verifiability, achievability, and traceability.

(6) Assistance with IA investigation endorsement.

3.3.3 The Center or Program/Project IA Advisors shall:

a. Be NASA Federal employees.

Note: When possible, the advisors should have completed the NASA Root Cause Analysis classroom training within the last five years, supported an IA, and taken the online mishap training series within the last two years.

b. Attend meetings as necessary, travel with the IA as requested, and have access to all investigative material. Only the legal and medical advisors may be afforded access to privileged witness statements and interview records.

3.3.4 The Center or Program/Project Legal Advisor shall:

a. Develop nondisclosure agreements (NDAs) for IA contractor administrative support personnel and consultants.

b. Develop NDAs when the IA uses a contractor to analyze interview data or participate in interviews.

c. Provide legal advice and counsel as requested by the chairperson.

d. Attend interviews if a lawyer accompanies the interviewee during the interview process.

3.3.5 The chairperson may exclude advisors, with the exception of the legal advisor, from participating in deliberations that discuss privileged witness statements.

Note: The legal advisor may review witness statements to provide legal guidance to the IA. The medical advisor may be present at an interview of a victim or review a victim's statement.

3.4 Investigating Authority Consultant Selection

3.4.1 Non-Federal employees may serve as consultants to the IA.

3.4.2 Consultants' academic and technical experience should match or exceed the technical and management complexity of systems related to the mishap.

3.4.3 IA consultants may be contracted or hired to:

a. Provide technical expertise to the IA.

b. Perform analysis.

c. Assist in formulating findings, as requested.

3.4.4 Center or Program/Project consultants shall not:

a. Participate in deliberations or vote on findings.

b. Read, listen, or participate in witness interviews unless they are tasked to record or analyze interviews.

Note: The IA may procure the services of contractors specializing in witness interview techniques or having other technical expertise if the following are true:

1. The contractor is not affiliated with the mishap, the contractors, or responsible organizations involved in the mishap.

2. The contractor is specifically tasked by contract to support the interview process or analyze interviews.

3. The contractor has signed the NDA prior to participation or support.

4. NASA does not have Federal employees readily available to perform the task.

3.4.5 Center or Program/Project Non-Federal employee administrative support shall sign an NDA before given access to mishap data or International Traffic in Arms Regulations (ITAR), Export Administration Regulations (EAR), proprietary, or privileged information.

3.5 Appointment Letter Content

3.5.1 For Type A and Type B mishaps and high-visibility mishaps and close calls, the Center or Program/Project AO

shall document the following in the IA appointment letter:

- a. IA member identification (chairperson, ex officio, and advisors).
- b. Scope of the investigation including undesired outcome.
- c. Projected completion date in accordance with this NPR. Within 75 workdays of the mishap or close call or as specified in the appointment letter or MPCP, the IA submits the completed and signed mishap report to the AO.

Note: The designated person with authority to classify an event as a NASA mishap may not become aware of the event or exposure until long after its occurrence. For example, exposure to asbestos, noise, or toxins may not be known to reach potentially disabling levels for months. In such cases, the AO should note the start of the investigation from the signature date of the appointing letter instead of the date of occurrence.

- d. IA relief from collateral duties statement for the appointment period.
- e. Expected cooperation of Center and program personnel regarding IA requests for information relevant to the investigation.
- f. Point of contact for matters relating to the appointment and investigation including administrative, logistical, and information technology support functions at a minimum.

Note: For Type C and Type D mishaps and close calls, the IA appointment document will be in accordance with Center policy or Program/Project MPCP, whichever takes precedence.

| [TOC](#) | [Preface](#) | [Chapter1](#) | [Chapter2](#) | [Chapter3](#) | [Chapter4](#) | [Chapter5](#) | [Chapter6](#) |
[Chapter7](#) | [Chapter8](#) | [Chapter9](#) | [AppendixA](#) | [AppendixB](#) | [AppendixC](#) | [AppendixD](#) |
[AppendixE](#) | [AppendixF](#) | [AppendixG](#) | [AppendixH](#) | [AppendixI](#) | [AppendixJ](#) | [ALL](#) |

| [NODIS Library](#) | [Program Management\(8000s\)](#) | [Search](#) |

DISTRIBUTION: **NODIS**

This document does not bind the public, except as authorized by law or as incorporated into a contract. This document is uncontrolled when printed. Check the NASA Online Directives Information System (NODIS) Library to verify that this is the correct version before use: <https://nodis3.gsfc.nasa.gov>.
